BY ORDER OF THE COMMANDER
AIR COMBAT COMMAND

AIR FORCE INSTRUCTION 21-103

AIR COMBAT COMMAND SUPPLEMENT
ADDENDUM_L

3 SEPTEMBER 2013

Maintenance

EQUIPMENT INVENTORY, STATUS, AND UTILIZATION REPORTING SYSTEM/WC-135C/W MINIMUM ESSENTIAL SUBSYSTEM LIST (MESL)

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This MESL compliments AFI 21-103, *Equipment Inventory, Status, and Utilization Reporting.* It applies to all WC-135C/W ACC units. This addendum does not apply to Air National Guard or Air Force Reserve Command units and members. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with Air Force Manual (AFMAN) 33-363, *Management of Records*, and disposed of in accordance with (IAW) Air Force Records Information Management System (AFRIMS) Records Disposition Schedule (RDS). Contact supporting records managers as required. Send recommended changes or comments on AF Form 847, *Recommendation for Change of Publication,* to the OPR at: Physical address: HQ ACC/A4C, 219 Dodd Blvd, Langley AFB VA 23665. E-mail address: **acc.a8ca135@langley.af.mil.** This publication may not be supplemented.

SUMMARY OF CHANGES

This publication is substantially revised and must be completely reviewed. Mission columns have been changed. Numerous systems Work Unit Codes (WUCs) have been added or deleted. Remarks are incorporated for each applicable WUC and have replaced notes to better clarify mission capability requirements.

1. General. The MESL is the basis of status reporting IAW AFI 21-103. MESLs lay the ground work for reporting the status of aircraft availability. They list the minimum essential systems and subsystems that must work on an aircraft for it to perform specifically assigned unit wartime, training, test or other missions. MESLs are not comprehensive WUC lists and are not intended to mirror Minimum Equipment Lists. Mission Ready Available (MRA) is used in readiness Status of Resources and Training System (SORTS) reporting only and denotes Mission Capable (MC) aircraft capable of being configured for a contingency mission IAW COMACC OMNIBUS Plan.

1.1. Remarks are used to define aircraft exceptions and help explain complex degraded mission systems.

1.2. Aircraft status for generation and deployment: The goal is to generate or deploy Fully Mission Capable (FMC) aircraft, recognizing status actually achieved may be less than FMC. A Not Mission Capable (NMC) aircraft may be deployed provided it is safe for flight and can be configured and generated to MRA status at an employment site.

1.3. All ACC units will generate, or deploy and regenerate, using ACC MESLs. Major Command differences in MESLs are acknowledged. Upon actual deployment to another MAJCOM theater, the gaining MAJCOM has the responsibility to resource and specify the unit's requirements and resource the differences in support/mission equipment.

1.4. Reading the MESL (Table 1). A MESL is read by comparing the systems stated by WUC against the Full System List (FSL) and all applicable Basic Systems Lists (BSLs) across the page. Each unit's Design Operational Capability (DOC) statement determines applicability of BSL columns. The aircraft MESL incorporates all ACC assigned aircraft and therefore it is important to compare only those columns listed in the MESL which are applicable to the unit's assigned aircraft. For example, units with CC (wartime) coded aircraft would determine and report status using only the FSL and BSL columns related to their DOC statement. Units with TF (training) coded aircraft would determine and report status using only the FSL and TNG columns , and units with CB (test) coded aircraft would determine and report status using only the FSL and TST columns. Units with multiple coded aircraft will ensure status is reported using the MESL columns appropriate to the individual aircraft assignment code.

Table 1. WC-135C/W MESL

				BSL
WUC	**Item**	**Remarks**	**FSL**	**WAS**
11000	Airframe	None	X	X
12000	Fuselage Compartment	If required for mission.	X	X
13000	Landing Gear	None	X	X
14000	Flight Controls	None	X	X
23000	Engines	All compressor bleed and anti-ice valves must operate for flight into known or forecast icing conditions.	X	X
23T00	Thrust Reverser TF33-P5 (61-2667 Only)	None	X	
41000	Air Conditioning, Pressurization and Surface Ice Control	Normal air conditioning or alternate pressurization operable with automatic or manual temperature control.	X	X
41140	Windshield Wipers	One wiper operational required for PMC.	X	X
41200	Cabin Air Conditioning System	PMC if one PAC operational on 61-2667. NMC if on 62-3582.	X	X
41350	NESA Window	Pilot and Copilot's #1 and #2 must operate.	X	X
41430	Electronic Cabinet Cooling Overheat Light	PMC if fans are operational.	X	X
41900	Radiation Filter Installation	None	X	X
42000	Electrical System	None	X	X

				BSL
WUC	**Item**	**Remarks**	**FSL**	**WAS**
44140/ 50/60/ 70	Warning Light Assemblies	PMC if fuel low pressure or cabin pressure inoperable.	X	X
44211	Nose Landing Light	Either the nose landing light or one of the wing landing lights must operate.	X	X
44212	Taxi Lights	One taxi light or terrain clearance light must operate for night operations.	X	X
44228	ARR Receptacle Lighting	Required for night A/R only, otherwise PMC.	X	X
44233	Navigation Lights	One tail navigation light may be inoperative.	X	X
44250	Anti-Collision (Strobe) Lights	Upper anti-collision strobe light must be operable.	X	X
44263	Landing Lights	Either the nose landing light or one of the wing landing lights must operate.	X	X
44266	Terrain Light (Retractable)	None	X	
45000	Hydraulic and Pneumatic Power Supply	None	X	X
46000	Fuel System	None	X	X
46117	Transfer Valve #10 (No. 1 Reserve)	None	X	
46283	Transfer Valve #17 (No. 4 Reserve)	None	X	

				BSL
WUC	**Item**	**Remarks**	**FSL**	**WAS**
46316	Fuel Override Pump	PMC if center wing fuel not required for mission accomplishment.	X	X
46600	Tank to Engine Manifold Valves	PMC if one valve failed in the OPEN position.	X	X
469A0	Air Refueling Receiver Electrical System	PMC if not required for mission.	X	X
47000	Oxygen System	All occupied positions must have an operable regulator.	X	X
47200	Oxygen Quantity Indication	PMC if individual converter quantities are readable. Totalizer and Supply Low caution light not required.	X	X
49000	Miscellaneous Utilities	Required for safety of flight and flight monitoring.	X	X
51000	Instruments, General	None	X	X
51AAA	Flight Director Control	Multi-unit system. Aircraft PMC with at least one unit operational.	X	X
51AAE	Rate of Turn Gyro	Multi-unit system. Aircraft PMC with at least one unit operational.	X	X
51B00	RGA Subsystem	Multi-unit system. Aircraft PMC with at least one unit operational.	X	X
51ED0	Fuel Systems Analysis/CAS ICDU	None	X	
51F00	Fuel Quantity System	PMC if Reserve Tank indication is inoperative as long as tank quantity can be verified prior to takeoff.	X	X

				BSL
WUC	**Item**	**Remarks**	**FSL**	**WAS**
51J00	Multi-Function Display	PMC if able to monitor aircraft position, performance, and maintain aircraft control at pilot or co-pilot position.	X	X
51L00	Flight Data Recorder	None	X	
51M00	Altitude Alerter	Multi-unit system. Aircraft PMC with at least one unit operational.	X	X
51N00	RVSM (Reduced Vertical Separation Minima)	PMC if NAV position inoperative.	X	X
51Y00	AOA (Angle of Attack)	Multi-unit system. Aircraft PMC with at least one unit operational.	X	X
51114	Standby ADI (Attitude Director Indicator)	None	X	
51300	Engine Instruments	Either analog or digital indication required for PMC.	X	X
51400	Flap Position Indicator	One may be inoperative on either flap position indicator provided: (1) flaps operate normally; (2) verification of flap position can be made prior to take off and landing.	X	X
52A00	Autopilot System	Roll, pitch and altitude hold required for PMC. Required for low level missions.	X	X
52180	Yaw Damper System	Required for low level and extended cruise above FL 250.	X	X
61000	HF Communications	Multi-unit system. Aircraft PMC with at least one unit operational. Two fully operational systems required for busy relay/over water missions.	X	X

				BSL
WUC	**Item**	**Remarks**	**FSL**	**WAS**
62300	AN/ARC-210 VHF/UHF Radio	Multi-unit system. Aircraft PMC with at least one unit operational.	X	X
63200	UHF (SATCOM) Communications	None	X	
64160	AN/AIC-18 Intercom	All crewmembers must be able to transmit and receive on interphone. CALL function must be operable.	X	X
65D00	AN/APX-119 - Identification Friend or Foe (IFF) System	None	X	X
66300	ELT (Emergency Location Transmitter)	Only required when carrying passengers.	X	X
71A00	ADF (Automatic Direction Finding)	None	X	
71B00	VOR/LOC	PMC with at least one unit operational.	X	X
71Z00	Tactical Airborne Navigation (TACAN)	PMC with at least one unit operational.	X	X
72700	FMS (Flight Management System)	Either FMS 1 or FMS 2 operational for PMC.	X	X
727B0	LN-100GT	Multi-unit system. Aircraft PMC with at least one unit operational.	X	X
72Z00	Search Radar	One NAV scope required for PMC.	X	X
73A00	Enhanced Traffic Collision Avoidance System (ETCAS)	Only required when carrying passengers.	X	X
98000	AARE System (Advanced Atmospheric Research)	None	X	X
98B00	Particulate Sampler Assembly U-1 FOILS	Multi-unit system. Aircraft PMC with at least one unit operational.	X	X

				BSL
WUC	**Item**	**Remarks**	**FSL**	**WAS**
98XXX	Radiation Monitoring and Analysis System (RMAS)	Multi-unit system. Aircraft PMC with at least one unit operational.	X	X
98XXX	Direction Gamma Detection System (DGDS)	None	X	
98XXX	Crew Safety Radiation Monitoring System (CSRMS)	None	X	

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Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

AFI 21-103, *Equipment Inventory, Status, and Utilization Reporting*, 26 Jan 2012

Adopted Forms

AF Form 847, *Recommendation for Change of Publication*

Abbreviations and Acronyms

ACC—Air Combat Command

ARR—Air Refueling Receiver

A/R—Air Refueling

BSL—Basic System Lists

CAS—Calibrated Airspeed

DOC—Design Operational Capability

FMC—Fully Mission Capable

HF—High Frequency

IAW—In Accordance With

ICDU—Integrated Control and Display Unit

LN—Litton Navigation

MAJCOM—Major Command

MC—Mission Capable

MESL—Minimum Essential Systems List

MRA—Mission Ready Available

NESA—Non-Electrostatic Formulation A

NMC—Not Mission Capable

OCR—Office of Collateral Responsibility

PAC—Pressurization and Air Conditioning

PMC—Partial Mission-Capable

RGA—Rotation Go Around

SATCOM—Air Force Satellite Communications

UHF—Ultra High Frequency

VHF—Very High Frequency

VOR/LOC—VHF Omni-directional Radio Range Localizer

WAS—Weather, Air Sampling

WUC—Work Unit Code